

WHAT IS CLAIMED IS:

- 1 A method for determining relevance values of terms in a help database in a  
computer-based insurance claims processing system, the method comprising:
- 5 determining a word position of an occurrence of a term in a portion of a document  
in the help database, wherein the portion of the document comprises one  
or more words;
- determining a total word count of the portion of the document; and
- determining a relevance value for the occurrence of the term in the portion of the
- 10 document using the word position of the occurrence and the total word  
count of the portion of the document.
2. The method of claim 1,  
wherein said determining the relevance value for the occurrence comprises:
- 15 dividing the word position by the total word count to produce the  
relevance value for the occurrence.
3. The method of claim 1, further comprising:  
multiplying the relevance value by a first scaling factor to produce a scaled
- 20 relevance value.
4. The method of claim 1, further comprising:  
rounding the relevance value to a number of significant digits.
- 25 5. The method of claim 1, further comprising:  
storing the determined relevance value for the occurrence in an entry in a table in  
the help database.
6. The method of claim 1, further comprising:

45



10. The method of claim 1,  
wherein said determining the relevance value for the occurrence comprises:  
dividing the word position by the total word count to produce a positional  
relevance value for the occurrence;  
dividing a number of words in the term by the total word count of the  
portion to produce a percentage relevance value for the occurrence;  
and  
combining the positional relevance value and the percentage relevance  
value to produce the relevance value for the occurrence.

11. The method of claim 10, further comprising:  
multiplying the relevance value by a second scaling factor to produce a scaled  
relevance value.

12. The method of claim 10, further comprising:  
rounding the relevance value to a number of significant digits.

13. The method of claim 10, further comprising:  
storing the determined relevance value for the occurrence in an entry in a table in  
the help database.

14. The method of claim 10,  
wherein said combining the positional relevance value and the percentage  
relevance value to produce the relevance value for the occurrence  
comprises:  
multiplying the positional relevance value by a third scaling factor to  
produce a scaled positional relevance value;

multiplying the percentage relevance value by a fourth scaling factor to produce a scaled percentage relevance value; and adding the scaled positional relevance value and the scaled percentage relevance value to produce the relevance value for the occurrence.

5

15. The method of claim 14, wherein the third scaling factor is substantially equal to (1 - the fourth scaling factor).

10

16. A method for determining relevance values of terms in a help database in a computer-based insurance claims processing system, the method comprising:

determining a word position of an occurrence of a term in a portion of a document in the help database, wherein the portion of the document comprises one or more words;

15

determining a total word count of the portion of the document;

determining if the portion of the document is a header or a text section; and

determining a relevance value for the occurrence of the term in the portion of the document using the word position of the occurrence and the total word count of the portion of the document;

20

wherein, if the portion of the document is a text section, said determining the relevance value for the occurrence comprises:

dividing the word position by the total word count to produce the relevance value for the occurrence; and

25

wherein, if the portion of the document is a header, said determining the relevance value for the occurrence comprises:

dividing the word position by the total word count to produce a positional relevance value for the occurrence;

dividing a number of words in the term by the total word count of the portion to produce a percentage relevance value for the occurrence; and

combining the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence.

17. The method of claim 16, further comprising:  
providing a first scaling factor for occurrences in text sections;  
wherein, if the portion of the document is a text section, the method further  
comprises:  
multiplying the relevance value by the first scaling factor to produce a  
text section relevance value.

18. The method of claim 17, further comprising:  
providing a second scaling factor for occurrences in headers;  
wherein, if the portion of the document is a header, the method further comprises:  
multiplying the relevance value by the second scaling factor to produce a  
header relevance value.

19. The method of claim 18,  
wherein the second scaling factor is substantially equal to (1 - the first scaling factor).

20. The method of claim 18,  
wherein, if the portion of the document is a header, the method further comprises:  
adjusting the header relevance value by adding the first scaling factor to  
the header relevance value.

21. The method of claim 16, further comprising:

rounding the relevance value to a number of significant digits.

22. The method of claim 16, further comprising:

storing the determined relevance value for the occurrence in an entry in a table in  
the help database.

23. The method of claim 16,

wherein said combining the positional relevance value and the percentage  
relevance value to produce the relevance value for the occurrence  
comprises:

multiplying the positional relevance value by a third scaling factor to  
produce a scaled positional relevance value;

multiplying the percentage relevance value by a fourth scaling factor to  
produce a scaled percentage relevance value; and

adding the scaled positional relevance value and the scaled percentage  
relevance value to produce the relevance value for the occurrence.

24. The method of claim 23,

wherein the third scaling factor is substantially equal to  $(1 - \text{the fourth scaling factor})$ .

25. A method for determining relevance values of terms in a computer-based  
insurance claims processing system comprising a help database, wherein the help  
database comprises one or more documents, the method comprising:

searching the one or more documents in the help database for occurrences of one  
or more terms used in the insurance claims processing system;

locating in the one or more documents one or more occurrences of the one or  
more terms in response to said searching;

determining a relevance value for each of the one or more occurrences located in the one or more documents; and  
storing the determined relevance value for each of the one or more occurrences in a table in the help database;  
wherein the relevance values for the one or more occurrences are used in displaying the one or more occurrences of the one or more terms in order of relevance in the insurance claims processing system.

26. The method of claim 25,  
wherein the one or more documents comprise headers and text sections;  
wherein said determining the relevance value for each of the one or more  
occurrences located in the one or more documents comprises:  
determining a header relevance value for an occurrence if the occurrence  
is in a header; and  
determining a text section relevance value for the occurrence if the  
occurrence is in a text section.

27. The method of claim 26,  
wherein the text section comprises N words;  
wherein the occurrence of the term is at an Xth word in the text section, wherein  
X is from 1 to N, and wherein 1 is a location of a first word in the text  
section;  
wherein said determining the text section relevance value for the occurrence if the  
occurrence is in the text section comprises:  
determining the text section relevance value using N and X, wherein the  
text section relevance value is higher the closer the occurrence is to  
the beginning of the text section.

28. The method of claim 26,

wherein the header comprises N words;  
wherein the occurrence of the term is at an Xth word in the header, wherein X is  
from 1 to N, and wherein 1 is a location of a first word in the header;  
wherein the term comprises T words, wherein T is from 1 to N;  
5 wherein said determining the header relevance value for the occurrence if the  
occurrence is in a header comprises:  
determining a positional relevance value using N and X, wherein the  
determined positional relevance value is higher the closer the  
occurrence is to the beginning of the header;  
10 determining a percentage relevance value using T and N, wherein the  
percentage relevance value is the percentage of the header  
occupied by the term; and  
combining the positional relevance value and the percentage relevance  
value to produce the header relevance value.

29. An insurance claims processing system comprising:  
a computer system including a memory medium;  
a help database for the insurance claims processing system stored in the memory  
20 medium, wherein the help database comprises one or more documents  
related to the processing of insurance claims in the insurance claims  
processing system and one or more tables configured for use in locating  
occurrences of terms in the help database;  
program instructions stored in the memory medium and executable within the  
25 computer system, wherein the program instructions are executable to:  
determine a word position of an occurrence of a term in a portion of a first  
document in the help database, wherein the portion of the first  
document comprises one or more words;  
determine a total word count of the portion of the first document; and



determine a relevance value for the occurrence of the term in the portion of the first document using the word position of the occurrence and the total word count of the portion of the first document.

5 30. The system of claim 29,  
wherein, in said determining the relevance value for the occurrence, the program  
instructions are further executable to:  
divide the word position by the total word count to produce the relevance  
value for the occurrence.

10 31. The system of claim 29, wherein the program instructions are further executable  
to:  
multiply the relevance value by a first scaling factor to produce a scaled  
relevance value.

15 32. The system of claim 29, wherein the program instructions are further executable  
to:  
round the relevance value to a number of significant digits.

20 33. The system of claim 29, wherein the program instructions are further executable  
to:  
store the determined relevance value for the occurrence in an entry in a first table  
in the help database.

25 34. The system of claim 29, wherein the program instructions are further executable  
to:  
number the one or more words in the portion of the document from N down to 1,  
wherein N is the total word count of the portion of the document;

wherein, in said determining the word position of the occurrence, the program instructions are further executable to:

determine the word number of a first word of the term in the one or more words in the portion of the document; and

wherein, in said determining the relevance value for the occurrence, the program instructions are further executable to:

divide the word position by the total word count to produce the relevance value for the occurrence.

10 35. The system of claim 29, wherein the program instructions are further executable  
to:

number the one or more words in the portion of the document from 1 up to N,  
wherein N is the total word count of the portion of the document;

wherein, in said determining the word position of the occurrence, the program instructions are further executable to:

determine a word number of a first word of the term in the one or more words in the portion of the document, wherein the word number of the first word of the term is used as the word position of the occurrence; and

wherein, in said determining the relevance value for the occurrence, the program instructions are further executable to:

~~subtract the word position from the total word count to produce a first results;~~

add one to the first results to produce a second results; and

divide the second results by the total word count to produce the relevance value for the occurrence.

36. The system of claim 29,  
wherein the portion of the document is a text section.



42. The system of claim 38,  
wherein, in said combining the positional relevance value and the percentage  
relevance value to produce the relevance value for the occurrence, the  
program instructions are further executable to:

multiply the positional relevance value by a third scaling factor to produce a scaled positional relevance value;

multiply the percentage relevance value by a fourth scaling factor to produce a scaled percentage relevance value; and

add the scaled positional relevance value and the scaled percentage relevance value to produce the relevance value for the occurrence.

43. The system of claim 42,  
wherein the third scaling factor is substantially equal to (1 - the fourth scaling factor).

44. An insurance claims processing system comprising:  
a computer system including a memory medium;  
a help database for the insurance claims processing system stored in the memory medium, wherein the help database comprises one or more documents related to the processing of insurance claims in the insurance claims processing system and one or more tables configured for use in locating occurrences of terms in the help database;  
program instructions stored in the memory medium and executable within the computer system, wherein the program instructions are executable to:  
determine a word position of an occurrence of a term in a portion of a document in the help database, wherein the portion of the document comprises one or more words;  
determine a total word count of the portion of the document;

determine if the portion of the document is a header or a text section; and  
determine a relevance value for the occurrence of the term in the portion  
of the document using the word position of the occurrence and the  
total word count of the portion of the document;

wherein, if the portion of the document is a text section, in said determining the relevance value for the occurrence, the program instructions are further executable to:

divide the word position by the total word count to produce the relevance value for the occurrence; and

wherein, if the portion of the document is a header, in said determining the relevance value for the occurrence, the program instructions are further operable to:

divide the word position by the total word count to produce a positional relevance value for the occurrence;

divide a number of words in the term by the total word count of the portion to produce a percentage relevance value for the occurrence; and

~~combine the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence.~~

45. The system of claim 44,  
wherein, if the portion of the document is a text section, the program instructions  
are further operable to:

multiply the relevance value by a first scaling factor to produce a text section relevance value;

wherein, if the portion of the document is a header, the program instructions are further operable to:

multiply the relevance value by a second scaling factor to produce a header relevance value; and

wherein the second scaling factor is substantially equal to (1 - the first scaling factor).

5

46. The system of claim 45,  
wherein, if the portion of the document is a header, the program instructions are further operable to:  
adjust the header relevance value by adding the first scaling factor to the header relevance value.

10

47.  
48. The system of claim 44, wherein the program instructions are further operable to:  
store the determined relevance value for the occurrence in an entry in a first table in the help database.

48.  
49. The system of claim 44,  
wherein, in said combining the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence, the program instructions are further operable to:

multiply the positional relevance value by a third scaling factor to produce a scaled positional relevance value;

multiply the percentage relevance value by a fourth scaling factor to produce a scaled percentage relevance value; and

add the scaled positional relevance value and the scaled percentage relevance value to produce the relevance value for the occurrence;

and

wherein the third scaling factor is substantially equal to (1 - the fourth scaling factor).

25

~~49  
50.~~~~50.~~

5

10

15

15

15

15

20

R1.126

50.  
~~51.~~

50.  
~~51.~~

25

25

determine a text section relevance value for the occurrence if the occurrence is in a text section.

R1.126 51.  
52.  
50  
5 The system of claim 51, wherein the program instructions are further operable to:  
determine a number of words in the text section, wherein the number of words in  
the text section is expressed as N;  
determine a position of the term in the text section, wherein the position of the  
term is at an Xth word in the text section, wherein X is from 1 to N, and  
wherein 1 is a location of a first word in the text section;  
10 wherein, in said determining the text section relevance value for the occurrence if  
the occurrence is in the text section, the program instructions are further  
operable to:  
determine the text section relevance value using the number of words in  
the text section and position of the term in the text section, wherein  
15 the text section relevance value is higher the closer the occurrence  
is to the beginning of the text section.

R1.126 52.  
53.  
20 The system of claim 51, wherein the program instructions are further operable to:  
determine a number of words in the header, wherein the number of words in the  
header is expressed as N;  
determine a position of the term in the header, wherein the position of the term is  
at an Xth word in the header, wherein X is from 1 to N, and wherein 1 is a  
location of a first word in the header;  
determine the number of words in the term, wherein the term comprises T words,  
25 wherein T is from 1 to N;  
wherein, in said determining the header relevance value for the occurrence if the  
occurrence is in a header, the program instructions are further operable to:  
determine a positional relevance value using the number of words in the  
header and the position of the term in the header, wherein the



determined positional relevance value is higher the closer the occurrence is to the beginning of the header;

determine a percentage relevance value using the number of words in the term and the number of words in the header, wherein the percentage relevance value is the percentage of the header occupied by the term; and  
combine the positional relevance value and the percentage relevance value to produce the header relevance value.

5

SUB A3  
R1.126

53.  
54.

A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

determining a word position of an occurrence of a term in a portion of a document in a help database in a computer-based insurance claims processing system, wherein the portion of the document comprises one or more words;

15

determining a total word count of the portion of the document; and  
determining a relevance value for the occurrence of the term in the portion of the document using the word position of the occurrence and the total word count of the portion of the document.

20

R1.126  
54.  
55.

The carrier medium of claim 53,  
wherein, in said determining the relevance value for the occurrence, the program instructions are further computer-executable to implement:  
dividing the word position by the total word count to produce the relevance value for the occurrence.

25

R1.126  
55.  
56.

The carrier medium of claim 54, wherein the program instructions are further computer-executable to implement:

multiplying the relevance value by a first scaling factor to produce a scaled relevance value.

R1.126 56.  
57. The carrier medium of claim ~~54~~<sup>53</sup>, wherein the program instructions are further  
5 computer-executable to implement:  
storing the determined relevance value for the occurrence in an entry in a table in  
the help database.

R1.126 57.  
58. The carrier medium of claim ~~54~~<sup>53</sup>, wherein the program instructions are further  
10 computer-executable to implement:  
numbering the one or more words in the portion of the document from N down to  
1, wherein N is the total word count of the portion of the document;  
wherein, in said determining the word position of the occurrence, the program  
instructions are further computer-executable to implement:  
15 determining the word number of a first word of the term in the one or  
more words in the portion of the document; and  
wherein, in said determining the relevance value for the occurrence, the program  
instructions are further computer-executable to implement:  
dividing the word position by the total word count to produce the  
20 relevance value for the occurrence.

R1.126 58.  
59. The carrier medium of claim ~~54~~<sup>53</sup>, wherein the program instructions are further  
computer-executable to implement:  
numbering the one or more words in the portion of the document from 1 up to N,  
25 wherein N is the total word count of the portion of the document;  
wherein, in said determining the word position of the occurrence, the program  
instructions are further computer-executable to implement:  
determining a word number of a first word of the term in the one or more  
words in the portion of the document, wherein the word number of

the first word of the term is used as the word position of the occurrence; and

wherein, in said determining the relevance value for the occurrence, the program instructions are further computer-executable to implement:

5 subtracting the word position from the total word count to produce a first results;

adding one to the first results to produce a second results; and

dividing the second results by the total word count to produce the relevance value for the occurrence.

10 R1.126 59.  
60. The carrier medium of claim <sup>53</sup>54,  
wherein the portion of the document is a text section.

15 R1.126 60.  
61. The carrier medium of claim <sup>53</sup>54,  
wherein the portion of the document is a header.

20 R1.126 61.  
62. The carrier medium of claim <sup>53</sup>54,  
wherein, in said determining the relevance value for the occurrence, the program

instructions are further computer-executable to implement:

25 dividing the word position by the total word count to produce a positional relevance value for the occurrence;

dividing a number of words in the term by the total word count of the portion to produce a percentage relevance value for the occurrence;

combining the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence;

25 multiplying the relevance value by a second scaling factor to produce a scaled relevance value; and

storing the determined relevance value for the occurrence in an entry in a table in the help database.

62  
~~63~~

The carrier medium of claim 62,

wherein, in said combining the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence, the program instructions are further computer-executable to implement:

multiplying the positional relevance value by a third scaling factor to produce a scaled positional relevance value;

producing a scaled percentage relevance value; and

adding the scaled positional relevance value and the scaled percentage  
relevance value to produce the relevance value for the occurrence;  
wherein the third scaling factor is substantially equal to (1 - the fourth scaling  
factor).

15

15  
R1.126 63  
~~64.~~

64. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

determining a word position of an occurrence of a term in a portion of a document in a help database in a computer-based insurance claims processing system, wherein the portion of the document comprises one or more words;

determining a total word count of the portion of the document;

determining if the portion of the document is a header or a text section; and

determining a relevance value for the occurrence of the term in the portion of the document using the word position of the occurrence and the total word count of the portion of the document;

wherein, if the portion of the document is a text section, said determining the relevance value for the occurrence comprises:

dividing the word position by the total word count to produce the relevance value for the occurrence; and

wherein, if the portion of the document is a header, said determining the relevance value for the occurrence comprises:

5 dividing the word position by the total word count to produce a positional  
relevance value for the occurrence;

dividing a number of words in the term by the total word count of the portion to produce a percentage relevance value for the occurrence; and

10 combining the positional relevance value and the percentage relevance  
value to produce the relevance value for the occurrence.

~~65.~~ The carrier medium of claim 64, wherein the program instructions are further computer-executable to implement;

15 wherein, if the portion of the document is a text section, the program instructions  
are further computer-executable to implement:

multiplying the relevance value by a first scaling factor to produce a text section relevance value;

wherein, if the portion of the document is a header, the program instructions are  
20 further computer-executable to implement:

multiplying the relevance value by a second scaling factor to produce a header relevance value; and

adjusting the header relevance value by adding the first scaling factor to the header relevance value; and

25 wherein the second scaling factor is substantially equal to (1 - the first scaling factor).

66. The carrier medium of claim 64, wherein the program instructions are further computer-executable to implement:

storing the determined relevance value for the occurrence in an entry in a table in the help database.

*R1.126* <sup>66.</sup>  
~~67.~~ The carrier medium of claim <sup>63</sup>~~64~~,

5 wherein, in said combining the positional relevance value and the percentage relevance value to produce the relevance value for the occurrence, the program instructions are further computer-executable to implement:  
multiplying the positional relevance value by a third scaling factor to produce a scaled positional relevance value;  
10 multiplying the percentage relevance value by a fourth scaling factor to produce a scaled percentage relevance value; and  
adding the scaled positional relevance value and the scaled percentage relevance value to produce the relevance value for the occurrence;  
15 wherein the third scaling factor is substantially equal to (1 - the fourth scaling factor).

*R1.126* <sup>67.</sup>  
~~68.~~ A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

20 searching one or more documents in a help database in a computer-based insurance claims processing system for occurrences of one or more terms used in the insurance claims processing system;  
locating in the one or more documents one or more occurrences of the one or more terms in response to said searching;  
25 determining a relevance value for each of the one or more occurrences located in the one or more documents; and  
storing the determined relevance value for each of the one or more occurrences in a table in the help database;

R1.126  
5 68.  
~~69.~~

67

10

determining a header relevance value for an occurrence if the occurrence is in a header; and

R1.126  
15 69.  
~~70.~~

68

20

wherein, in said determining the text section relevance value for the occurrence if the occurrence is in the text section, the program instructions are further computer-executable to implement

25

21.26 70.  
21.

determining that the text section comprises N words;

determining that the occurrence of the term is at an Xth word in the header, wherein X is from 1 to N, and wherein 1 is a location of a first word in the header;

determining that the term comprises T words, wherein T is from 1 to N;

wherein, in said determining the header relevance value for the occurrence if the occurrence is in a header, the program instructions are further computer-executable to implement:

determining a positional relevance value using N and X, wherein the determined positional relevance value is higher the closer the occurrence is to the beginning of the header;

determining a percentage relevance value using T and N, wherein the percentage relevance value is the percentage of the header occupied by the term, and

combining the positional relevance value and the percentage relevance value to produce the header relevance value.

ADD A1